

PREPARING AND COOKING WILD GAME

UTAH DIVISION OF WILDLIFE RESOURCES • AUTUMN 2005

wildlife

R E V I E W

Ethics

Changing values
in changing times

Cougars

Elusive,
mysterious,
secretive &
contentious

Wild Turkeys

A Utah
success story

Wildlife Review

Utah Division of Wildlife Resources

Department of Natural Resources Executive Director
Michael R. Styler

Division of Wildlife Resources Director
James F. Karpowitz

Conservation Outreach Section Chief
Larry Dalton

Publications Editor
Christy Merrick

Database Manager/Librarian
Vicki Unander

Media Specialist/Editor
Mark Hadley

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Send comments to:
Editor, Wildlife Resources
P.O. Box 146301
Salt Lake City, Utah 84114-6301
ChristyMerrick@utah.gov

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DIRECTOR'S MESSAGE

WELCOME to the autumn issue of Wildlife Review. Inside you will find several interesting articles on wildlife and hunting. You will also find an interview where I discuss the priorities and direction of the Division of Wildlife Resources for the next few years. A major emphasis of this administration will be to restore and improve wildlife habitat and watersheds across the state. Habitat improvement projects will benefit many wildlife species including game, non-game and fish. Everyone in the state will benefit from improved watersheds and clean water. So enjoy this issue of Wildlife Review and have a safe and exciting fall season.

James F. Karpowicz
UDWR Director

Jim Karpowicz



Canada geese

Expect great hunting during the upcoming split season.

HUNTERS could enjoy some of the best goose hunting in years after the Utah Wildlife Board voted to close Utah's 107-day Canada goose season for two weeks in December and then reopen the season and allow it to run until late January 2006.

To become official, all of the rules the board adopted must meet federal guidelines established by the U.S. Fish

and Wildlife Service. The USFWS is expected to approve its final waterfowl season frameworks in late September.

All of the rules approved by the board are available in the 2005–2006 *Utah Waterfowl Proclamation*.

Hunting geese into late January

Extending Utah's Canada goose season into late January could provide hunters with some of the best goose hunting they've seen in years.

The first part of the goose season will run Oct. 1 to Dec. 1. The season will

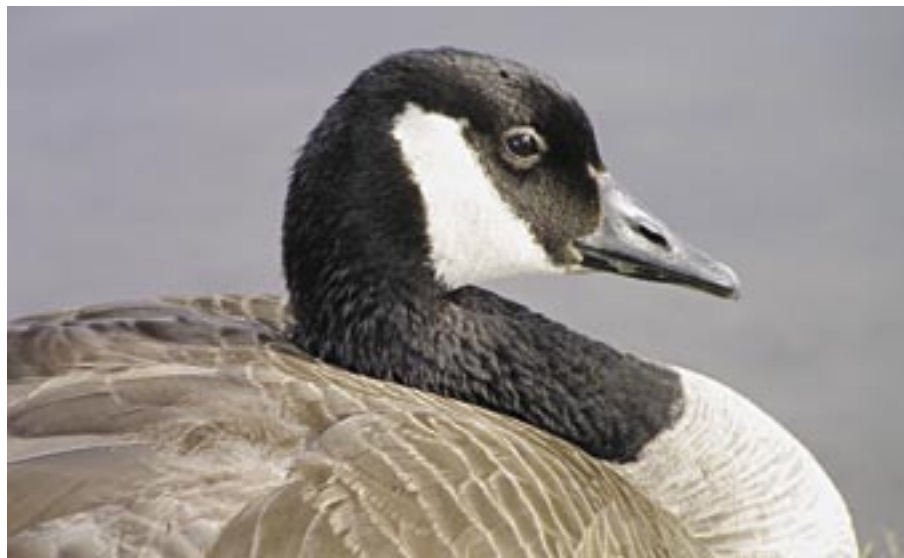
then close, but it will reopen Dec. 17, 2005 and run until Jan. 29, 2006.

"We think Canada goose hunters, especially those along the Wasatch Front, will be excited about the change," said Tom Aldrich, waterfowl coordinator for the Division of Wildlife Resources.

Aldrich says as soon as the hunting season starts in October, many of the Canada geese in Utah head for urban areas where they spend most of the season. In January, the geese begin moving back to the marshes in preparation for the breeding season. Data the UDWR has collected from four independent harvest surveys across the state shows the number of Canada geese taken by hunters starts to climb in early January.

"Even more geese will leave the urban areas later in January, and we think hunting will get better and better as the month progresses," Aldrich said. "Canada goose hunters should enjoy some great hunting this season, and I think they'll take more geese."

Aldrich says there are four times as many geese in Utah now as there were 30 to 40 years ago. Many of these geese are causing problems at golf courses and other urban areas where they spend much of the fall and winter, and where they can't be taken by hunters. 🦆



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HUNTING Ethics

Changing values in changing times

BY MITCH LANE
Sergeant, Salt Lake City office

IT'S A COOL fall afternoon during the deer hunt, and you've been hiking all day. You're looking for a big buck and have decided to hike a little farther than the rest of your hunting party. You've shot several small deer in years past and now you want a "trophy."

You're in prime deer country and you've seen a lot of fresh sign. It's rugged terrain—just the place to find an elusive, mature buck. You left camp several hours ago and the short fall day is coming to an end.

Then you see him across the canyon. It's the buck you've been picturing in your mind the whole time you've been hiking to an area few hunters would dare go.

As you kneel down to survey the situation, thoughts begin to race through your mind. You don't have time to sneak up on him. By the time you get close, if you even can get close, it will be too dark to shoot. You could shoot at him from where you're at, but the shot will be well over 300 yards and most of your target shooting practice has been at targets not more than 200 yards away. If you hit and injure him, you'll never be able to track and find him because it will be dark by then.

Do you take the shot and chance wounding the buck and never finding him? Or do you not take the shot and return to camp with another story about the one that got away?

Defining ethics

Young hunters today are taught the importance of being



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ethical. Teaching young hunters ethics helps ensure the image of hunters and hunting isn't tarnished in the eyes of those who either oppose hunting or merely chose not to participate themselves. The idea of ethics in hunting isn't new, but what constitutes ethical behavior has changed over time almost as much as hunting itself has.

So, who is and isn't an ethical hunter today?

To understand what an ethical hunter is, we must first define the word "ethical." The *Merriam-Webster Dictionary* defines ethical as "involving or expressing moral approval or disapproval." The words "moral" and "ethical" are used synonymously in the dictionary, and an ethic is defined as "the principles of conduct governing an individual or a group."

Stated in simple terms, ethical behavior is that which is accepted as good rather than bad and right rather than wrong. Unfortunately, because of everyone's upbringing, past experiences, personal beliefs and values, what is ethical to one person



Hunters are confronted with ethical questions and decisions that require more than simply obeying the law.

might not be ethical to someone else.

Ethics change over time

Not only can ethics vary from one person to another, but ethics also change over time as society and its values change. For example, at one time, market hunting (killing animals and selling them for their meat) and hunting to sustain your family were generally approved and were probably thought to be ethical. Eventually, due to changes in social and biological attitudes, people began to approve less of these activities. Now they're considered unethical and are usually illegal.

A more recent example is "party hunting." Party hunting happens when hunters take game, not only for themselves, but also for others in their party who have a license. Party hunting results in some hunters taking an over limit of game and other hunters in the party unlawfully lending their permits to them. Party hunting allows some hunters to take more than their legal share of game,

while other hunters don't get the chance to take their legal share.

While this practice has always been illegal, it was generally approved of and was quite common only a couple of decades ago. Today the biological and legal ramifications of party hunting are more widely understood, and most hunters know that party hunting is both unethical and illegal.

Ethical hunting issues today

Many other ethical dilemmas also face hunters today. For example, is it ethical to use off-highway vehicles to pursue big game? If so, at what point does OHV use become unacceptable? Most hunters agree that OHV use is unethical when it damages the environment or when the vehicles are used in a manner that provides hunters with an unfair advantage over the game they're pursuing. But what about the gray areas in between?

What about the use of bait to attract or lure wildlife into the effective

shooting range of a waiting hunter? In many cases, such as in waterfowl hunting, baiting is prohibited by law. In other hunting situations, however, baiting is not prohibited and is a commonplace practice in some areas of the country.

What about long-range hunting, where hunters take aim and shoot at game that can be several hundred yards away? These hunters use large-caliber rifles, usually with precisely hand-loaded cartridges, and spend many hours practicing long-range shooting. They can shoot at game without stalking the animal and before the animal even knows it's being hunted.

Another ethical dilemma involves the use of traditional equipment versus more modern, technologically advanced equipment, such as electronic range finders, in-line muzzleloaders, and electronic decoys and game calls. Some of this equipment takes away the need to acquire the skills, abilities and knowledge that a traditional hunter must have

to be successful.

Do these modern devices provide hunters with an unfair advantage? Do they detract from the original concept of hunting, in which the skills, abilities and intelligence of humans were necessary to outsmart and stalk a wild animal and make a well-placed shot?

People used to hunt out of necessity and learned and developed the most effective methods to provide for their needs. Now people hunt mainly for sport, recreation or trophies. We do this by choice and not by necessity, yet we are still intent on employing the most effective method to give ourselves the greatest advantage over our prey.

A virtual hunting reality

One of the latest controversies regarding hunting ethics is the advent of Internet hunting. Now hunters don't have to leave their home or office to hunt. They can log on to a Web site and shoot an animal from the comfort of their computer terminal, using a rifle that is connected to a computer and a Web camera.

The California legislature recently passed a bill prohibiting the use of computer-assisted hunting sites and the import and export of any animals taken by such means. At that time, 14 other states and Congress were also considering similar legislation.

Groups in support of the legislation claim Internet hunting is unethical and unsporting. Those opposed to the legislation say the Internet could provide hunting opportunities to people with disabilities who might not be able to participate in hunting activities otherwise.

Fair chase

With all of the ethical questions facing hunters, and the many more that will arise as technology advances, now more than ever, the fundamentals of ethical hunting—fair and good rather than unjust and bad—must be kept in the forefront of

hunters' minds.

A good basis to determine whether a hunting practice is ethical is the concept of fair chase. Fair chase forms a balance between the hunter and the hunted in which a wild animal usually escapes unharmed but is sometimes taken by the hunter. Fairness to the animal and its chances to escape unharmed could be the best way to measure whether a behavior is ethical or unethical because any practice that tends to give the hunter an unfair advantage over his prey is often deemed unethical.

Instilling ethics in young people

In hunter education classes, students are taught that to be a true sportsman, they must adopt and adhere to their own code of ethics. A code of ethics is a set of rules based on respect for what is safe and fair. Students are taught to respect wildlife and its habitat; landowners and their rights; other hunters and non-hunters; and game laws and

firearms. These students are taught that to be ethical, responsible hunters, there are unwritten laws, as well as written ones, that they must follow.

Even as good as the hunter education curriculum is, by the time these students are the age when they can legally hunt, chances are great that their ethics and morals have already been formed. Hopefully by this time, family members and others they know will have taught and exposed them to positive attitudes and behaviors that will help them become ethical hunters.

You must decide

If these young students could be taught that the difference between ethical and unethical behavior is the same as the difference between legal and illegal behavior, what's ethical and what's unethical would certainly be easier for them to understand. Unfortunately, the laws and rules that govern hunting only set guidelines within which every hunter

must make personal, ethical decisions. Even though most hunters probably consider most infractions of the law unethical, there are many acts that are not illegal that many hunters still consider unethical.

Each person develops their own ethical standards, but it's the collective decisions and behaviors of all hunters that will dictate how hunting is viewed by other hunters and non-hunters in the years to come. The actions of one hunter, good or bad, affect how all hunters are viewed. Aldo Leopold summarized the complexity of hunter ethics best in *A Sand County Almanac* when he wrote: "A peculiar virtue in wildlife ethics is that the hunter ordinarily has no gallery to applaud or disapprove of his conduct. Whatever his acts, they are dictated by his own conscience, rather than by a mob of onlookers. It is difficult to exaggerate the importance of this fact." 🐾

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Aldo Leopold
A Sand County Almanac

By **CHRISTY MERRICK**
Outreach Coordinator

Wolves

AT THE DOOR

Love them
 or hate them,
 wolves will
 one day make
 a return
 to Utah.

NO ONE KNOWS for certain how many wolves the state might become home to, or when. But most biologists agree that some day, some wolves will come. And a recent decision by the Utah Wildlife Board has created a blueprint for how the state could manage them.

A brief history of wolves

Historically, North America was home to healthy populations of two wolf species: red wolves and gray wolves. Red wolves, once found in certain areas of the Southeast, are now extinct. Gray wolves were found across North America, including Utah. The last gray wolf in Utah, however, was eliminated

in 1930 in San Juan County, and by 1940 wolves were eliminated from all of the lower 48 states.

With the passage of the Endangered Species Act (ESA), however, wolves got a new lease on life. Listed in 1973, wolves received special protection from the federal government that in 1995 and 1996 led to the reintroduction of 66 gray wolves to Idaho, Wyoming and Montana. Over the past decade, that number has grown more than tenfold, with more than 800 wolves now in the population. With breeding pairs well established in each of the states, the numbers of wolves have exceeded wolf recovery goals.

Taking the reigns

As wolf populations have grown, the federal government has begun to look to the future and has asked states to prepare to manage this species on their own should delisting from the ESA become possible. Without approved plans from the states where they live, the federal government will not hand over management of the animals.

Although most scientists agree that

wolves will likely disperse into Utah eventually from surrounding states where their numbers are now growing, the US Fish and Wildlife Service did not require Utah to create a management plan. But leaders in Utah's legislature hoped that by taking a more proactive approach and developing a management plan early on, the state might see control of these predators returned from the federal government to states sooner.

The Utah Legislature directed the Utah Division of Wildlife Resources to develop a management plan the Wildlife Board could approve that would:



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With a wolf management plan already in place, Utah is better prepared to deal with wolves' eventual return. The plan might also hasten a decision by the federal government to turn over wolf management to the state.

protect the interests of the Ute Indian Tribe, minimize livestock losses, and protect wildlife management investments—all while meeting the requirements of both state and federal wildlife management goals.

A working group goes to work

Realizing they'd need help from a wide diversity of Utahns to craft a plan that would meet all these goals, the division assembled a group that represented the state's diverse interests in wolf management. Called the Wolf Working Group, the team was made up of 13 members representing academia,

wolf advocates, sportsmen, agriculture, local governments, the Ute Indian Tribe, the Utah Wildlife Board and conservation groups.

In 15 public meetings guided by a professional facilitator, the group listened to expert advisors, received public comments, wrestled with tough issues and looked for consensus on each issue they faced.

In the end, the group submitted a proposed plan to the Utah Wildlife Board that most members of the working group supported. The group identified six main strategies to manage wolves dispersing into Utah.

Reach out: The first strategy the group identified is to develop and implement outreach programs. In addition to keeping the public and legislature up to date on developments in wolf management, the group suggested some high-tech alternatives in communications, including the possible development of an interactive Web site that would let the public track the dispersal of wolves across the state.

Manage wolf-human interactions:

The group thought it was important to stress that any wolves that proved to be a nuisance to people, or that posed any



The size of a wolf track often surprises those unfamiliar with the animal.

human safety risks, must immediately be removed, either through trapping and relocation or lethal means, depending on the situation.

Research and monitoring: The group recognized that the key to effectively managing wolves in Utah is having the most information possible. They recommended collaring and monitoring the movements of wolves wherever possible;

monitoring impacts on other wildlife species, especially big game animals; and publishing the results of the research every year.

Manage wolf-wildlife interactions:

The group acknowledged that government agencies, nonprofit organizations and even individuals have invested significant amounts of money and time to enhance wildlife populations across the

state, with many significant investments in game species such as deer and elk. The group's plan aims to protect those investments by recognizing that wolf management must fall in line with the management of all other wildlife in the state, and that wolves will be managed as predators once they are delisted.

Control livestock losses: Recognizing the importance of protecting Utah's farmers and ranchers from unacceptable losses from wolves, the group's plan calls for timely, responsive management to problem wolves. Not only should those wolves be removed (the group did not come to consensus on the best way to remove wolves in different situations), but the group also felt that livestock owners who lost animals to wolves should be compensated for their loss.

Provide funding: The group also recognized that managing a new predator in Utah will come at a cost. From compensating livestock owners for lost animals, to research and monitoring programs to outreach efforts, managing

wolves will cost the state at least \$60,000 per year. Costs for research and monitoring alone could exceed \$100,000 per year according to the group's estimates. Sources for these funds will need to be identified by the Utah Legislature, but the group suggested that the legislature consider allocating general fund dollars, endangered species management funds, federal funds and private

donations through the state's tax check-off program.

Adopting a plan

Once developed, the UDWR hit the road to discuss the proposed plan at each of the state's Regional Advisory Councils, which help gather local input across the state about proposed wildlife policies. In addition, the Division received public input through a special Web site created to inform the public about the plan. Finally, the Utah Wildlife Board, which sets wildlife policies for

the state, heard the group's plan, along with a significant amount of public input. Through letters, emails and personal appeals, hundreds of Utahns weighed in on every side of the wolf debate.

In the end, the Wildlife Board adopted the plan with several key amendments. Specifically, the Board included provisions to allow ranchers to remove, either with lethal or non-lethal methods, any wolves that harass or kill their livestock. Second, the board recommended to the legislature that

livestock owners be compensated for 100 percent of the value of any livestock that is taken, or possibly taken, by wolves. Third, the board directed the division to develop a plan to manage wolves should they have a negative effect on big game populations. Finally, the board recommended that the legislature appropriate additional funding for the Division to manage wolves in Utah.

What's next?

With a final plan in place, the Division hopes to encourage the U.S. Fish and Wildlife Service to remove wolves from the endangered species list and

return management authority to the states, including Utah.

In the meantime, biologists, hunters, hikers and many others across the state will continue to watch and listen for wolves in the wilderness. Some are longing to hear the cry of wolves in our forests, while others cringe at the thought of once again sharing our state with these predators. Whatever each of us thinks of these animals, the reality is that they are likely on their way back to Utah. As wolves are making their strides toward a recovery, the state has also taken another step closer to managing them when they arrive. 🐾

THE GREAT Debate

IT SEEMS THAT no one in Utah is indifferent to wolves—Utahns both love and hate wolves. The following are excerpts from letters to the editor that ran in two of the state's largest newspapers, *The Salt Lake Tribune* and the *Deseret Morning News*.

■ "Should we allow thieves and cutthroats to come into our communities and grant them immunity? Of course not. And yet we do when we introduce the wolf into our backyard."

— Mike Dunn, Brigham City
(*Deseret Morning News*)

■ "Wolves are a vital part of any healthy ecosystem: the predator. When the wolves were reintroduced to Yellowstone in 1995, saplings that hadn't had a chance to grow near riverbanks due to overgrazing began to spring up again after a 70-year absence. Wolves also keep herds strong and healthy by going after sick, diseased and old animals. Chances are the same things will happen in our state. Wolves definitely belong in Utah."

— Ray Cromar, Cedar Hills
(*Deseret Morning News*)

■ "As far as I'm concerned, the human species is a disgrace to the animal kingdom. Daily accounts of attacking and killing occur far more often within our species than the abundant 'stories' (read undocumented) [wolf opponents] refer to. Wolves deserve the chance to reclaim every part of their habitat that we have yet to destroy."

— Dennis D. Polster, Salt Lake City
(*The Salt Lake Tribune*)

■ "Wolves are not cute, loving creatures as we have been told, but are vicious, deadly, aggressive predators in real life. The truth is that wolves do attack humans and livestock. There are many cases of this happening. The only reason that this is not front page news every day is that the wolf population is not large at present, thank heaven."

— John L. Anderson, Salt Lake City
(*The Salt Lake Tribune*)

■ "Wolves, like any wild predator, do indeed pose a threat, but to call wolves damaging is a ridiculous statement. What is damaging is for humans to believe they should attempt to re-engineer ecosystems in order to better serve their personal economic needs. Rattlesnakes, wildcats, bears and even moose pose danger to humans. Shall we eliminate them, too? Where do we stop?"

— Matt Palmer, Bountiful
(*The Salt Lake Tribune*)

■ "When all the high-flown rhetoric and panegyrics to nature are over, what environmentalists believe is that human beings are evil. However, it might be argued that when people kill dangerous animals they are only doing what comes naturally with the abilities with which nature has endowed them."

— Allen S. Thorpe, Castle Dale
(*The Salt Lake Tribune*)

■ "The Utah Wildlife Board caved in to the complaints of ranchers and adopted a wolf management plan that will never allow wolves to be viable in Utah."

— Allison Jones, Murray
(*The Salt Lake Tribune*)

By MARK HADLEY
Media Specialist

Jim Karpowitz

A conversation with the new UDWR director

AS YOU MIGHT expect, the Division of Wildlife Resources' new director Jim Karpowitz is a busy man. Whether he's out in the field meeting with partners, speaking at professional meetings or buried by paperwork in his office, Jim is finding that managing the state's wildlife is more than a full-time job. But I was able to catch up with him after a recent speech to ask him a few questions about himself, the division and his vision for the future of Utah's wildlife.

Question: *What are the major challenges facing Utah's wildlife today?*

Answer: We have some big challenges right now, but we also have a lot of opportunities to do good things for wildlife.

Probably our biggest challenge is habitat and watershed restoration. During the last several years of extensive drought, we've seen some real changes and problems with rangelands and wildlife habitat in the state. We need to be aggressive to improve those habitats around the state. If we do that, all wildlife will benefit—game, nongame, fish.

That's going to be a big part of what we do, and it's going to be a major focus of the agency.

We also have some challenges with disease issues. We have chronic wasting disease in deer in some areas of the state, we have whirling disease in some of our fish and fish hatcheries, and we have West Nile virus that's just coming to the

state and may impact bird populations. Those are big challenges. Fortunately we have good professionals who are on top of those issues.

One of the biggest challenges is whirling disease in our fish hatcheries. We now have three hatcheries that are down due to whirling disease. It's going to take an extensive amount of funding to rebuild and restore those hatcheries so that they're protected from whirling disease, but we need to do it. We have half-a-million fishermen in this state, and protecting our hatcheries against whirling disease is critical.

We also face a big challenge in our agency with our personnel. In the next three to five years, we stand to lose most of the experienced personnel in our agency. That's going to leave a huge void. We need to aggressively recruit top-notch people, like we've had in the past, so we can maintain the high level of professionalism that we currently have in this agency.

Question: *What is the current condition of wildlife habitat in Utah, and how important is habitat to the state's wildlife?*

Answer: Healthy habitat is absolutely critical to having healthy wildlife populations in the state. Habitat is the single most important factor determining



Large machinery is often used in the UDWR's habitat improvement efforts.

how well our wildlife populations do.

The last couple of years we've seen a return to normal precipitation. That's improved range conditions across the state in many ways, but there are still some big challenges. We have vast areas of sagebrush that were damaged by the drought and need to be restored. We also have invasive plant species, such as cheatgrass, that are expanding across the state. We need to combat these invasive species wherever we can and prevent them from taking over wildlife habitats.

We're going to be real aggressive with habitat improvement to make sure we have healthy habitat and to make sure we fight off invasive species that are becoming so common around the state.

Question: *The number of young people coming into the hunting and fishing ranks has been declining for years. How important is it that young people become hunters and anglers, and what ideas do you have to make that happen?*

Answer: It's important that young people get excited about wildlife. Whether it's hunting, fishing or wildlife watching, we want them to be excited about wildlife so they're supportive of our programs as they grow into adults. We have programs around the state to get young people interested in the out-of-doors.

We start with their parents. We have a program called Becoming an Outdoors Woman that helps moms understand more about the out-of-doors and getting their kids interested in wildlife programs.

Then we have a number of youth programs around the state. We have youth hunting and fishing experiences and wildlife festivals kids can participate in. We have youth pheasant hunts, a Youth Waterfowl Day, a Free Fishing Day and a number of other programs kids can get involved in. We just recently set aside a certain number of big game permits for youth hunters. We're emphasizing youth programs in an attempt to recruit and retain young people into the

programs and to keep them excited and supportive about wildlife in Utah.

Question: *What can be done to increase the number of deer in Utah?*

Answer: The best way to increase the number of deer in the state is to be aggressive with habitat improvement. We've set a goal for ourselves to improve

“PROBABLY OUR BIGGEST CHALLENGE IS HABITAT RESTORATION, AND HABITAT AND WATERSHED IMPROVEMENT.”

100,000 acres of habitat every year for the next 10 years. That's a million acres. It comes at a huge price tag, and it's going to take a lot of money from public and private sources to accomplish that task. If we're successful in doing that, the deer herd will recover, especially if we have normal precipitation. It doesn't matter how much seed you put in the ground, if you don't have good precipitation, it's not going to work.

And then we have to be very responsible in the way we manage our deer and in the way we manage predators that affect deer populations. We need to carefully manage our deer herds as well as the predators that prey on deer.

Question: *As the division's new director, what's your focus and what are some of the major things you want to accomplish?*

Answer: I can break the goals into three categories over the next few years.

The first goal has to do with our agency. It's important to me that our agency be a place where employees are motivated, successful and happy in what they're doing. If our employees are successful, then we're successful as an agency. So it's going to be really important to me that we have an agency where employees are highly motivated, where they're professional and where they do a great job.

That's going to be important from an internal perspective, and recruiting and retaining good employees is a part of that.

Then a major emphasis is going to be the resource and how we take care of it. As I've mentioned, habitat improvement is going to be a major focus. We're going to be really focused and intent on this Habitat and Watershed Initiative, and we're going to accomplish the 100,000 acres of range-land restoration a year that we've targeted. As a result, we'll have healthier game populations and we'll be able to conserve and secure our sensitive species so they don't go to the endangered species list. We'll be able to sustain all of these popula-

tions well into the future if we focus on habitat.

The final area where we've set goals for ourselves is how we relate with the public and our constituency that we serve. We're going to work real hard to build relationships with wildlife interest groups and the public in general, with government officials and with the public as a whole. We're going to interact and work with the people of the state of Utah, and we're going to be a service-oriented agency. We're going to work hard to serve people. We need to understand that we serve the public. We're going to work well with our constituencies throughout the state.

Question: *You grew up in Utah. How do you think growing up in the state affects the way you want to manage wildlife here?*

Answer: I was born and raised in Salt Lake City, but haven't lived here for 35 years. I grew up back when 33rd South was the 'wild frontier' in the Salt Lake Valley.

I've always loved the out-of-doors. I grew up an avid hunter and fisherman. My dad owned a cabin in the mountains, and so we spent lots of time in the out-of-doors and I had a lot of great experiences hunting and fishing here in Utah.



Habitat and watershed restoration is one of the Utah Division of Wildlife Resource's highest priorities.

The way I grew up and the recreation we had as kids is one of the reasons I'm in this field.

I've always had a real interest in animals and wildlife since I was a kid, and I've had a lot of outdoor recreation opportunities. I've also been very interested in biology. My mother is a biologist, and I've been interested in biology since I was a young kid, so I was fortunate to find a way to combine my interest in hunting and fishing with biology and find a career in wildlife.

Question: *Taking the position of division director will require that you move to Salt Lake City. Do you think you'll like living in the state capital?*

Answer: It's going to be a big change. We've lived in rural Utah for a long time and it's been a great experience, and moving back to the big city is going to be interesting for us.

For the last 20 years we've lived in Price. I worked most of that time as the wildlife manager in the Southeastern Region and will be leaving Price now and moving back to Salt Lake City.

We've loved Price and Carbon County. We love the people there and the wildlife and the outdoors in the southeast part of the state. It's going to be hard for us to leave, but I guess we're coming to home 'to die where we were spawned.'

Question: *Kevin Conway, the division's former director, was well respected across the state. What do you think is the most important legacy Kevin left?*

Answer: Kevin and I were good friends. We worked in Price together for many years. He was the head of the law enforcement program, and I was over the wildlife program. I knew Kevin very well. I knew what was important to him and the values he carried to the director's office.

Kevin had it absolutely right when he started the Habitat Initiative. He realized that by focusing on habitat, all wildlife benefits. He had a real interest in getting this Habitat Initiative started and off the ground, and he did a great job in laying the foundation. Now it's our job to build on the foundation that Kevin laid.

It's going to be a big job. It's going to require a lot of money and a lot of effort, but Kevin had it right and he had a real vision. During the years Kevin was the director, he saw our rangelands deteriorate. Now we have the opportunity to restore those rangelands, to make them better and make wildlife habitat better across the state.

Question: *Before taking the position of division director, you served as the division's big game coordinator. Now that you're the director, should nonhunters in Utah be concerned that the division will respond more to the concerns of hunters than those of nonhunters?*

Answer: I served as the big game coordinator for six years. Prior to that, I was the wildlife manager in the Southeastern Region, where I managed all wildlife species. Somehow that has been

forgotten by many people.

Personally, I've always had an interest in all wildlife species. I began my career working with bobcats and initiated some of the early furbearer programs that we still use in the state. I've always been an avid birdwatcher. I have a life list of birds in the state. I quite often take my bird book with me when I go hunting or on vacation.

There's no doubt that I enjoy hunting and fishing. I'm not bashful to say I'm a consumptive user of wildlife, but I enjoy all wildlife and I need to make this point: I take very seriously our charge, as a wildlife agency, to be stewards for all of the wildlife of the state of Utah, and we'll do that. People do not need to be worried that some species will be neglected.

We take very seriously what we need to do with sensitive species, to conserve and protect them, so they don't become threatened or endangered. We're also going to expand and improve our game populations and secure that heritage for the people of the state of Utah.

I have a history of working with a variety of wildlife species and caring about all species, and that's going to continue.

I think focusing on all wildlife is really important because the majority of Utahns really care about wildlife. They're not pro-hunters or anti-hunters—they just love wildlife. We need to take care of wildlife for all of the people of the state of Utah. Wildlife contributes to the great quality of life we have here in the state. 🐾

These recent arrivals seem to like Utah as much as Utahns like them.

Wild Turkeys

By **DEAN MITCHELL**
Upland Game Coordinator

ONCE RARE IN UTAH, wild turkeys are now a common sight throughout the state.

Although Utah's early white settlers didn't encounter wild turkeys when they arrived in the state, historical and archeological evidence—in the form of pictographs, petroglyphs, turkey feather blankets and turkey bones—clearly indicates that wild turkeys co-existed with Native Americans in Utah.

Today, thanks to hard work by the Division of Wildlife Resources, the National Wild Turkey Federation, and Sportsmen for Fish and Wildlife, about 18,000 to 20,000 wild turkeys live in the state, making wild turkeys in Utah a wildlife management success story.

Transplanting turkeys

There are six species and subspecies of wild turkey in the world. The ocellated turkey is found in Mexico and Central America, while five subspecies—the Eastern, Gould's, Osceola or Florida, Merri-

am's and Rio Grande turkeys—inhabit North America.

Since the 1920s, three of the five North American subspecies, the Eastern, Merriam's and Rio Grande, have been introduced into Utah. Each of these introductions met with varying success.

Eastern: Sportsmen and landowners, with help from the Utah Department of Fish and Game, conducted the earliest transplants with Eastern wild turkeys, obtained from farm-raised stock. Unfortunately, these transplants failed.

Merriam's: In the 1950s, the Utah Department of Fish and Game transplanted Merriam's wild turkeys from stock obtained in Arizona and Colorado. Seven Merriam's from Colorado were released in the La Sal Mountains of Grand County in 1952. Today, established Merriam's populations are found in Beaver, Garfield, Grand, Iron, Kane, Piute, San Juan, Washington and Wayne counties. These populations are healthy enough to support trapping and relocation to other areas within the state.

Rio Grande: After a relatively unsuccessful attempt to release Rio Grande turkeys from Texas near the Pine Valley Mountains in Washington County in 1984, the division began a more aggressive turkey trapping and transplanting effort in 1989. The program uses mostly Rio Grande turkeys, and occasionally Merriam's turkeys, from Arizona, Colorado, Kansas, Oklahoma, South Dakota, Texas and Wyoming. Since 1989, birds have been released into nearly 170 sites throughout Utah.

Wild turkeys in Utah today

As a result of the transplant efforts,



NATIONAL WILD TURKEY FEDERATION

Merriam's and Rio Grande turkey populations in Utah have increased to the point where it's no longer necessary to transplant birds from other states.

two subspecies of the wild turkey are now found in Utah.

The Merriam's turkey is a mountain bird found in mature stands of ponderosa pine mixed with aspen, grassy meadows and oak brush grading into pinyon pine and juniper trees. Typical summer habitat consists of large stands of ponderosa pine that begin at an elevation of about 7,000 feet and extend up to the spruce-fir zone that can be as high as 11,000 feet. Winter habitat is usually below 7,000 feet and consists of ponderosa pine flats and individual ponderosa trees that extend down into the pinyon pine and juniper forests.

The Rio Grande turkey is similar in size and appearance to the other wild turkey subspecies. Adult males weigh from 17 to 21 pounds. Adult females average eight to 11 pounds. Rios can be distinguished from the other subspecies by the color on the tips of their tail feathers and their upper tail coverts (feathers of the lower back, covering the base of the tail feathers). In the Rio Grande bird, these feather tips are buff or tan. The feather tips of the Merriam's subspecies are white.

The Rio Grande turkey is found in cottonwood river bottoms that are often associated with oak brush and green, leafy plants. Unlike the Merriam's subspecies, the Rio does not migrate up and down the mountain in response to seasonal weather changes.

The wild turkey is the largest of Utah's upland game birds and is considered by many as the "trophy" upland game species. Wild turkeys are very similar in appearance to the domestic dark or bronze turkey, but the wild turkey has longer legs and a more slender, streamlined body. Breast feathers of the male wild turkey are tipped with black, while those of the female are tipped with white or buff.

Adult male turkeys are called toms or gobblers, and adult female turkeys are called hens. One-year-old male turkeys are called jakes and one-year-old female turkeys are called jennies. Chicks are called poults.

Wild turkeys begin their courtship activities in early spring, usually in March. The tom's gobbling serves as a challenge to other males and attracts females to his territory. One mature tom will mate with as many hens as he can attract. Nests are located on the ground in brushy cover. An average of 10 to 11 eggs are laid. The incubation period is 28 days.

Young turkeys (poults) require a protein-rich

insect diet typically found in open meadow areas. Poults depend on their mothers for protection and roost on the ground for the first two weeks of their life. Shortly after the two-week period, they develop the ability to fly and begin roosting in trees.

Jakes seldom reach reproductive maturity unless there is an absence of mature toms in the flock. A portion of the yearling hens, however, will mate and nest their first year.

The wild turkey is the largest of Utah's upland game birds.

Hunting turkeys in Utah

Utah's first turkey hunt was held in 1963 for the Merriam's subspecies. The hunt was held in the fall, and hunters could take either a male or female bird. A total of 248 hunters went afield and harvested 75 Merriam's turkeys.

Fall hunts continued until 1967 when a spring gobbler hunt also was authorized. In 1985, the fall hunt was eliminated and the season was changed to a spring gobbler-only hunt. Harvest steadily increased with the new strategy and continued transplants.

A limited entry season for wild turkey was established in 1994. Currently, about 1,600 turkey permits are available each spring. More than 9,000 hunters apply for the limited permits. In 2004, hunters took a total of 702 wild turkeys. Merriam's hunters experienced a 30 percent success rate while Rio Grande hunters enjoyed a 60 percent success rate.

The application period for spring turkey hunting is in December each year.


The wild turkeys' future in Utah

Management priorities for the wild turkey in Utah continue to include the release of birds into suitable habitats. There are now enough wild turkeys in Utah that transplants of birds from other states are no longer needed. A transplant priority list has been established for the state. The list includes four sites that can still receive Merriam's turkeys and 86 sites that are still available for Rio Grande turkeys.

Protection and enhancement of habitat is the future management focus for wild turkeys in Utah. The UDWR, in conjunction with researchers at Brigham Young University, is studying whether wild turkeys can survive in the pinyon pine and juniper forests of western Utah if water is added to these dry habitats. This study will help biologists understand more about where wild turkeys might live in Utah in the future. 🦃



With 18,000 to 20,000 wild turkeys now living throughout Utah, turkey hunting has taken off in popularity. Last year, hunters in the state took over 700 of these big birds.

A full-page photograph showing a conservation officer, Vance Mumford, and a young hunter standing next to a harvested buck deer. The officer, wearing a brown uniform and cap, is inspecting the deer's head. The young hunter, wearing a yellow and blue jacket and an orange beanie, stands with her arms crossed. The deer is hanging from a tree branch. The background shows a parking lot and trees with autumn foliage.

Conservation officer, Vance Mumford, inspects a young hunter's buck deer. Good-tasting meat requires proper preparation of the animal as soon after harvesting as possible.

BY MATT PELTON

Proper
field care is
the first step
to a delicious
feast.

Wild game

GROWING UP, my family depended on wild game as a valuable food source. Money was often too tight to afford store-bought meats, but the hills of south-central Utah were full of wild game that fit the bill.

My family had a tradition of eating the most desirable cut of meat the night we harvested an animal. In the case of a deer or an elk, that cut of meat was the tenderloins. The fresh-cooked meat always melted in our mouths, creating a once-a-year dining experience. I've carried this tradition on with my own family, and now they look forward to the "night-of-the-hunt feast."

In this article, I'll talk about two "night-of-the-hunt feasts" that are certain to entertain your palate and could help your family start your own traditions.

Proper field care

Proper field care is the first step to

a delicious feast, because if the meat is not properly cared for, it will never taste good. There are a few simple steps to remember that will give you great results every time. They are: *Bleed it, Clean it, Cool it and Care for it.* It's that simple.

When your wild game has a bad taste, it's usually because you've missed one of these steps. Excess blood spoils quickly, leaving meat with a "gamey" taste. If an animal is not cleaned properly, abdominal fluids and material can leave a foul flavor in its meat. If the meat isn't cooled, portions will spoil, which also leaves a bad flavor. This is especially a concern with archery hunters who often take their animals during warm times of the year.

To properly bleed a dead animal, you need to cut the veins and arteries in the neck or the large arteries deep in the legs. Position the cuts downhill and massage all the blood from the meat. The more blood you remove, the better your meat will taste.

When you remove the entrails from an animal, follow up by cleaning the body cavity with water, snow or whatever means are available. Washing out the cavity with water or snow will also help

cool the meat. The quicker the meat is cleaned and cooled, the more tender and flavorful it will be.

If there is a stream available, I always place the carcass in the water and let it sit until it's cool. Don't place your meat in a pond or standing water, the disturbed sediments or mud can introduce unwanted bacteria to the meat.

Most people do fine with big game animals such as deer and elk, but almost all fall short with fish, small game animals and birds. After you've taken these animals, it's just as important to follow all the steps listed above. Many times I see people throw small game in the back of their truck and not care for the meat until several hours later. Then they wonder why their family won't touch the meat they bring home. There is absolutely no reason why a grouse or a pheasant shouldn't taste better than the finest chicken you can eat.

Wild game, especially venison, is the preferred meat of royalty worldwide. This is because it's the richest and most healthy meat available. We are so lucky that we have this resource literally at our fingertips to enjoy every fall. I promise if you follow these rules, you and your family will enjoy eating the game you bring home.

Cooking wild game

When you're ready to cook your game, here are a few simple rules to follow: *Cook it hot, Cook it fast and Sear before you season it.* These simple rules will produce great results consistently.

It's important to cook meat hot because heat is needed to sear the meat, which seals in the fats and flavor. Cooking the meat fast is essential because wild meat cooks much faster than domestic meat. It's also important to sear the meat before you season it because the spices you place on the meat will often not allow the meat to sear. If the meat doesn't sear the fats and moisture will drain out, leaving the meat dry and tough.

Follow these steps and your family should become fans of wild game. On the next page are some great "Fall Mixed Bag" recipes for you and your family to enjoy this season.



PHOTO BY MATT PELTON

Easy to make and delicious to eat, mesquite venison tenderloins are the perfect meal in a hunting camp or at home.

Mesquite venison tenderloins

This recipe is one of my favorites. It's easy to make in a hunting camp or at home and goes well with just about anything.

Ingredients:

- Tenderloins from a deer or an elk
- 3 cloves of garlic, sliced
- 1 packet of dry mesquite marinade (to be used as a seasoning, not a marinade)
- 2 tablespoons of real butter
- 5 tablespoons of Worcestershire sauce

Directions:

Prepare the meat by making random incisions and inserting the garlic. Heat a little oil in a skillet on high until it smokes (this will happen when the oil reaches between 600 and 800 degrees). Set the tenderloins in the oil. Cook them on one side for two to three minutes, then turn them over. Make sure all the edges are seared completely. Once the meat has seared, add the mesquite mix liberally to the meat and cook it for 10 to 15 minutes. Turn the meat a few times to make sure it doesn't burn. After the meat is cooked, remove it from the heat and butterfly the roast by cutting it lengthwise down the middle. The meat in the middle should be warm, but should appear raw. Throw the slice of butter

into the skillet, and set the meat red side down into the butter. Cook the meat for three to five minutes, and then add the Worcestershire sauce to the meat. I like to cut the meat into strips and stir the strips into the sauce before serving.



Grouse parmesan

This recipe is one of my family favorites. It's an Italian-influenced dish that goes well with pasta, marinara sauce and Italian vegetables, such as bell peppers and asparagus.

Ingredients:

- Boneless breast meat from 2 grouse
- 2 eggs
- ½ cup of flour
- 2 cups of bread crumbs
- 4 slices of Mozzarella cheese
- 4 tablespoons of Parmesan cheese
- Salt and pepper to taste

Directions:

Remove the breast meat from two grouse. Set the breasts between two pieces of wax paper and pound the thickest part of the meat until it's uniform in thickness. In a bowl, mix the eggs, flour, Parmesan cheese, salt and pepper. On a plate, spread out the breadcrumbs. Heat up some oil (about a half-an-inch deep)

in a skillet over medium-high heat. Dip the breasts in the egg batter and then roll them in the breadcrumbs, making sure that the breast is covered. Set the breast in the oil and cook for three minutes or until the breadcrumbs are browned. Turn the breast over and lay a slice of Mozzarella cheese on the top. Cook the meat for another three minutes or until the bottom is browned. Serve with pasta and marinara sauce. 🍷

About the author

Matt Pelton is the author of the book *From Mountain to Tabletop*, a comprehensive



guide to game care from the time you pull the trigger until you serve it to your family. His passions in life are hunting and cooking the animals he harvests. While researching for the book, Matt spent several years

talking to people across the country about cooking wild game. He discovered that in all cases there was a pattern that was taught (usually from father to son) for cooking wild game. In his book, he has compiled this process into an easy-to-read guide that will produce great-tasting wild game every time.

By DAVID C. STONER AND
MICHAEL L. WOLFE

*Department of Forest, Range, and Wildlife Sciences,
Utah State University*

Cougars

THE COUGAR, or mountain lion, is one of the last widely distributed large carnivores in the western hemisphere. Remarkably, its range extends from central Canada all the way to Tierra del Fuego in South America.

In Utah, cougars are found throughout the state's foothill and mountain regions. The cougar's primary prey are

**Mysterious
contentious,
elusive &
secretive**

large ungulates such as deer, elk, bighorn sheep and wild horses; but many people don't realize that cougars also prey on coyotes, raccoons and skunks—species often considered pests.

Scientists think the ecological role of cougar predation is to stabilize ungulate populations, thereby preventing dramatic fluctuations in the populations. Others suggest that top carnivores such as cougars may act as keystones—species whose presence helps maintain biodiversity at greater levels than would exist otherwise.

Politically, the cougar's penchant for preying on species valued by human society, such as deer and bighorn sheep, place it in a precarious position for management agencies.

The public debate over how to manage cougars is diverse and contentious. Many conservation groups advocate conservative cougar hunting regula-

tions, while many big game hunters and livestock operators view the cougar as a competitor, which some would like to eliminate. Houndsmen have the closest relationship with the big cats and tend to favor conservation measures that promote sustainable cougar hunting opportunities.

Complicating the matter, the Southwest is the fastest-growing region of the country. With this growth, more people

are living in wildlife habitat, and irrigation and landscaping can attract animals to areas where people live. Consequently, many homeowners on the suburban-wildland interface believe that cougars threaten the safety of their children and pets.

In the long run, the cougar serves as an ecological indicator species whose response to environmental change provides an index to the integrity of the community. This makes the conservation of these secretive predators an important component of wildlife management.

Counting shadows

Unfortunately, the cougar is a mysterious creature that is difficult to study. Because cougars can live up to 12 years, don't produce many offspring and occur in low numbers, long-term studies are essential to obtain the information necessary to manage cougars under a variety of environmental and social conditions.

Most techniques for estimating animal populations were developed for watchable wildlife such as deer and elk—species that tend to be visible, occur in groups and are easily counted. Cougars, on the other hand, are scarce, move at night, inhabit rugged terrain and cannot be directly observed. Managers are left with only indirect means of assessing their abundance (for instance, by counting tracks in the snow).



PHOTO BY LYNN CHAMBERLAIN

The cougar's range extends from central Canada to the tip of South America.

The answer to the question “how many cougars are there in Utah?” remains as elusive as the animals themselves.

Cats don't always land on their feet

Many factors affect cougar populations, but three are particularly important:

1. Cougars are hunted throughout their range. Although cougars are fairly resilient, they do have certain charac-

two years).

2. Cougars are sensitive to prey declines. Prey scarcity can lead to declines in cougar reproduction and kitten survival.

3. Cougars are threatened by urban sprawl and road development. Human activities can lead to habitat loss and habitat fragmentation, which takes a toll on wildlife. Urban growth diminishes the ability of the land to support animals and increases the frequency of roadkill

“ALTHOUGH COUGARS CAN SUSTAIN SOME HUNTING, IT IS REALLY THE FOOD BASE THAT CONTROLS THEIR NUMBERS.”

teristics that make them vulnerable to over-hunting. These qualities include their large body size; low population densities (three to seven adults per 100 square miles); large home ranges (20 to 80 square miles per lion); and low reproductive rates (two to three kittens every

and depredation incidents. Deer and cougars are especially sensitive to these impacts.

Lion tamers and space cowboys

Utah State University is collaborating with the Utah Division of Wildlife

Resources, the Fishlake National Forest, the Utah National Guard and the Kennecott Utah Copper Corporation to examine cougar population trends and survival on Monroe Mountain in South-Central Utah and the Oquirrh Mountains in North-Central Utah. We're using a combination of both traditional and high-tech methods in our research.

The project employs two professional houndsmen, Clint and McLain Mecham, who capture and radio-collar study animals. Together, they have hunted and studied cougars for 20 years. Their tracking skills and knowledge of animal behavior are a large part of our project's success.

Additionally, we are using radio collars that incorporate Global Positioning System technology to examine the nighttime movements of cougars. GPS collars use passing satellites to triangulate locations of radio-collared cats every four hours, providing detailed information on individual lions year-round.

Aerial telemetry is also a vital component of this work. UDWR pilots Clair Shaffer and Craig Hunt follow the extensive movements of these highly mobile felines. All of these skills and tools help provide a picture of how cougars interact with each other and their environment.

Nine lives

In the past, scientists and managers assumed that hunting cougars would result in greater production of offspring, as is the case with coyotes. However, we found that because of the cougar's complex social structure, overhunting can result in declines in reproduction. The reasons for this are not clear, but appear to be linked to nomadic males killing kittens sired by other toms. During our research, higher reproductive rates were associated with males staying in the same area for a longer period of time.

It also has been presumed that hunting is necessary to keep cougar numbers in check. Although cougars can sustain some hunting, it is really the food base that controls their numbers. Recent research in eastern California demonstrates this. In that system, a six-



PHOTO COURTESY OF DAVID C. STONER

Typical cougar habitat is a mixture of riparian areas, forests and shrublands.

year drought caused a crash in the deer herd. The decline of the deer herd was followed by a severe decline in the lion population—all in the absence of any hunting. As range conditions improved, so did fawn production, and eventually cougar numbers increased too.

In fact, arid systems tend to be controlled from the *bottom up*, meaning that although predation plays an important role, habitat conditions drive how productive wildlife populations will be.

There goes the neighborhood

Of all the lore surrounding cougars, the most persistent is the adage that cougars eat one deer per week. On average, this is fairly accurate. However, this rate varies with the sex, age and reproductive status of each individual lion and the season, habitat and alter-

nate prey available to it. Actual predation rates are one deer every three to 21 days.

Research in Idaho and Wyoming indicates that during the summer, some cougars may go for months without killing a deer, particularly if ground squirrels, marmots and other small mammals are abundant.

More importantly, cougars occur in low densities relative to deer. It is estimated that in unexploited populations, there are about 200 to 1,000 deer for every cougar. Research conducted in southern Utah found that most of the deer killed by lions were the same sex and age classes of deer that succumbed to winterkill. Cougars can be influential in deer population dynamics, but it's important to remember that this relationship is confounded by precipitation, range conditions, winter severity, other predators,

hunting, roadkill and habitat loss.

Looking ahead

Despite a tumultuous social and political history and a mixed public image, the cougar is still widely distributed in Utah. Our work has led to many fascinating insights about cougar ecology and has made substantial progress toward increasing the knowledge of this vital ecosystem.

We are working with the Division of Wildlife Resources to develop management strategies for cougars when priorities include increasing deer herds, preserving public safety and maintaining biodiversity. The UDWR has helped sponsor two of the most comprehensive cougar studies ever conducted and stands to be a leader in the conservation of native predator-prey communities. 🐾



PHOTO COURTESY OF DAVID C. STONER

David Stoner, poses with a sedated, radio-collared cougar. Tracking cats' movements provides clues to their behavior.

BY JILL WEST
Coordinator of Volunteers

Dedicated Hunters

Making
a big
difference
to Utah's
wildlife

Central Region *Salem Pond Fishing Derby*

EVERY YEAR, about 1,000 volunteers assemble in the city of Salem to coordinate the annual Salem Pond Fishing Derby for

kids with special needs. Volunteers from the Division of Wildlife Resources' Dedi-

cated Hunter program, the U.S. Forest Service, Sportsmen for Fish and Wildlife, the National Wild Turkey Federation, Salem City, Spanish Fork High School, Albertson's, the Utah Jazz, the Utah Grizzlies and many other organizations work together to bring smiles to kids' faces as they catch fish provided by UDWR hatcheries.

Many dedicated hunters have said that volunteering at this event is one of the most memorable activities associated with the Dedicated Hunter program. It's not uncommon for volunteers to make life-long friendships with the participants, many of whom are confined to indoor facilities for much of the year and who really look forward to this annual event.

Paul Kaletta and the volunteers from Albertson's: The Paul Kaletta family and the employees of Albertson's have been instrumental in donating and preparing food for the approximately 1,500 to 2,000 people who participate in the

Salem Pond Fishing Derby every year. Paul and his wife Gail live in Tooele. They have been married for more than 31 years and have four children and eight grandchildren, with two more grandchildren on the way.

In addition to providing lunch for everyone involved with the event, Albertson's provides about 30 employees who cook and prepare the lunches. Paul has coordinated the feeding of participants and volunteers since the fishing derby began in 1989.

When the derby began, there were 17 participants and a handful of volunteers. Despite the enormous growth of the event through the years, Albertson's continues to provide this great service to everyone involved with the event. The value of Albertson's donation is now valued at more than \$9,000 each year. Paul and Albertson's also feed more than 350 participants annually at another fishing event in Tooele that's held for children with special needs.

Paul also volunteers his time and talents to The National Wild Turkey Federation and the Tooele County Wildlife Federation. He is an example of a person who has dedicated his life to helping others and Utah's wildlife.

Northeastern Region *Signs for sage-grouse*

In early March 2005, UDWR biologists in northeastern Utah knew they had a problem. In preparation for the



Albertson's feeds the 1,500 to 2,000 Salem Derby participants each year.



Thousands of kids, volunteers and other community members come out each year for the Salem Pond Fishing Derby.

spring mating season, sage-grouse were gathering on roads because the blacktop was the only place free of snow. It wasn't long before the biologists' fears were realized; sage-grouse started getting hit and killed by cars. The biologists asked the Dedicated Hunter program for help, and the request was posted on the Dedicated Hunter Web site page.

Kent Maag of Magna answered the call. After a short discussion about what was needed, Kent went to work, locating artwork and purchasing materials and paint. Within about a week, three signs were delivered to the UDWR's Salt Lake City office and passed on to UDWR biologists. The division appreciates Maag's quick action and his willingness to take on a job much larger than the 24 credit hours he received for the work he did.

Northern Region

Volunteers dedicated beyond the Dedicated Hunter Program

The father-and-son team of Brent and Chad Bassett bring new meaning to the label "dedicated." Both men are volunteer hunter safety course instructors.

They also spend countless hours helping youth in 4-H shooting sports and the International Youth Hunter Education Challenge. The Youth Hunter Education Challenge tests a young hunter's skills at wildlife identification, orienteering, trail safety, and his or her marksmanship with a shotgun, .22 caliber rifle, bow and arrow, and muzzleloader. Brent and Chad host weekend training camps at the Cache Valley Public Shooting Range in Logan to help increase the skills of the young men and women who represent Utah at the national competition.

Southern Region

Safe passage for wildlife

In the summer of 2004, along I-15 near the old Wildcat Interchange between Cove Fort and Beaver, the Utah Department of Transportation installed several new wildlife underpass structures. At the same time, a big-game-proof fence was extended along this stretch of freeway. Dedicated hunters contributed to the project's success by helping build big game escape ramps—wooden ramps five-and-a-half-feet tall that allow animals that find their way

onto the interstate a way to escape.

The Southern Region plans to further enhance safety features in big game underpasses by organizing dedicated hunters to help build post-and-pole fencing in the big game underpass structures. These fences will allow wildlife safe passage by eliminating the risk of animals getting hung up on wires.

Southeastern Region

Taking care of wildlife

One dedicated hunter service project in the Southeastern Region has evolved into a long-term commitment. When UDWR acquired the Cunningham Ranch in southeastern Utah (now known as the Nash Wash WMA), it was in need of restoration.

Two super-charged dedicated hunters, A.J. and Brenda Rogers, volunteered to act as caretakers of the ranch. In 2004 alone, they volunteered a total of 1,994 service hours to the division. Their work included rehabilitation, maintenance and upkeep of the ranch house and buildings; pasture and farmland development for big and upland game; and law enforcement support. 🐾



How wild animals prepare for cold weather

Winterizing

By **DIANA VOS**
Project WILD Coordinator

IN AUTUMN, the leaves of trees and shrubs turn endless shades of orange, gold and red. Aware of the impending cold and lean times of winter, people spend much of their time getting ready. We harvest vegetables and fruits from our gardens to store and use during the winter, shop for warm winter clothes and fatten up by feasting on holiday fare.

During the fall, many animals are busy doing the same things we're doing. To prepare for winter, some animals fatten up, some change to winter dress and others gather and store foods to feed on in the comfort of their warm winter homes.

Stocking the pantry

If you hike in a mountainous alpine region in the fall, you may see a pika preparing for winter. During the warmer months before winter, pikas spend much of their time harvesting and

drying grasses and forbs from meadows surrounding their rocky, talus homes. Collected plants are stacked like tiny hay piles atop boulders near their dens to dry in the sun. Each day the pikas add a bit more vegetation. Some piles can reach two feet in height. After the plants have dried, the pikas store them in spaces under the rocks near their den. When a thick blanket of snow later cov-

ers their rocky home, the pikas just head to their *pantry* to grab a bite to eat.

Beavers are another animal that spend the fall storing food for use in the winter. During the fall, beavers use their chisel-like teeth to cut down aspen, willows and other trees. They cut off bark-covered branches and drag them to the bottom of their pond, where the branches are pushed into the mud to hold them in place. In the winter, the beavers bring the branches into their den and gnaw off the nutritious layers of bark.

Beavers also create special floating structures to store branches for the winter. These floating structures are created by weaving together a raft of less palatable branches. Then they tuck edible branches into the underside of the raft. When the top of the pond freezes over, the raft becomes frozen in place, but the branches stuck in the bottom of the raft can be pulled free.

In the fall, Clark's nutcrackers also are very busy gathering and storing food for the winter. During the fall, they will store more than 20,000 seeds from the cones of various pine trees. If you're in the mountains in the fall, you can see many of these hoarders burying seeds in the ground. Carrying the seeds in a specialized pouch under their tongues, they



Pikas spend much of their time harvesting and storing winter food.

UTAH'S WILD NOTEBOOK



Clark's nutcrackers collect thousands of pine cone seeds for winter storage.

store the seeds on high, exposed ridges that receive sunlight and where winter snows don't accumulate as much. Storing the seeds on these ridges allows the nutcrackers to access them easily in the winter. Nutcrackers don't want to waste time caching seeds that may go bad, so they visually inspect the seeds they gather and toss out any that look rancid.

Squirrels and chipmunks are masters at collecting and storing foods, stuffing their cheeks full and then hiding their winter food supply in safe places. Red squirrels hoard complete cones, which they store in huge piles called "middens." Anyone who has walked through a forest in Utah has probably seen a midden—a noticeable hump of cone scales piled near the base of a pine

tree. Inside these caches are a network of storage chambers and tunnels where squirrels store their bounty. In a good year, it's estimated a red squirrel can store up to 16,000 cones.

Red squirrels also gather mushrooms for use in the winter. To resist decay, the mushrooms must be dried out before they can be added to the squirrel's winter storeroom. Squirrels dry mushrooms by placing them in hollow cavities in trees, laying them on top of old bird nests or spreading them along the tops of larger branches.

The fatter the better

Although black bears always have voracious appetites, they are especially intent on feeding in the fall. This is

because the amount of fat they accumulate is the main factor in whether or not they will survive the winter.

During the fall, black bears can actively feed for 20 hours a day, ingesting as much as 20,000 calories. They feast heavily on summer berries, such as serviceberries and chokecherries, as well as acorns and pine nuts. By the end of the fall, a typical black bear will have doubled its body weight and added three to four inches of fat.

As fall progresses and food grows scarce, black bears start searching for potential den sites such as caves, hollow caverns in or under trees, or spaces under rocks or holes that have been dug into a hillside. By early October, some bears have already entered their dens where they will stay for five or six months, burning off a thick layer of fat that helps keep them warm. Black bears live off their layers of fat during the winter, but they don't actually hibernate.

Fat accumulation is also extremely important to animals such as marmots and ground squirrels, both of which are true hibernators that dramatically decrease their metabolic activity during the winter. The body fat they put on during the fall is slowly used up as they hibernate for weeks or even months until the weather warms and food becomes available again.

Fall is the time other animals seek out winter homes too. Frogs (like many cold-blooded amphibians and reptiles that overwinter in a state similar to hibernation called "torpor") head to ponds or moist areas and prepare to bury themselves in the mud. Salamanders search out moist, rotting logs they can creep beneath; tortoises dig long, deep tunnels into sandy hillsides; and some snakes take shelter together in communal dens below the frost line.

In the fall, insects that don't migrate, such as wasps, beetles, butterflies and some bees, are busy seeking suitable places to hole up when it gets cold. Some find places to burrow into

the soil while others look for rotting vegetation or bark to crawl under, or crevices in trees or sides of houses to squeeze into. The slowed-down state these insects experience when winter arrives is called diapause.

Grasshoppers don't hang around for the cold. Instead, they lay eggs in the ground that can survive the winter. Galls (swollen layers of tissue that form on some shrubs) are actually protective winter homes for pupae or cocoons of various insects.

During the fall, brine shrimp in the Great Salt Lake also are producing billions of cysts that are able to endure winter's cold, ensuring the continuation of their kind.

"To prepare for winter, some animals fatten up, some change to winter dress and others gather and store foods to feed on in the comfort of their warm winter homes."

Dressing in layers

Just as you wear layers and put on a heavier coat during the winter, so do many animals including deer, elk, foxes, coyotes, bobcats, porcupines, raccoons, skunks, weasels and hares. To brave winter's frigid temperatures, not only do these mammals grow extra thick,

furry undercoats, many of them also wear a layer of outer fur made up of hollow hairs. The core of each outer hair is about 80 percent air space. The air spaces inside these hairs, along with air spaces created when the animal fluffs its fur, help the animal retain body heat.

Deer can grow winter coats as much as four times thicker than their summer coats. Birds that stick around for winter are

insulated by jackets of downy feathers. They often look quite plump as they fluff these feathers to hold more air next to their bodies.

In addition to growing a thicker coat in fall, some animals also change the color of their coat. The brownish feathers of ptarmigans that live above



Red squirrels, like this one, prepare and store huge amounts of winter food in big piles called "middens."

UTAH'S WILD NOTEBOOK



PHOTO BY RON STEWART

Deer and elk prepare for winter's cold temperatures by growing thick coats of fur to help retain body heat.

treeline are replaced by snowy white feathers that offer effective camouflage when winter snows blanket their high-elevation realm.

In the winter, long-tailed weasels and snowshoe hares also exchange their brown-colored coats for coats of white. This changing of coats, which can take a few weeks or a few months depending on the animal, usually begins in September or October. Scientists have learned that it isn't temperature change that causes these animals to change their coats, but a change in the length of days during the fall. Color change is controlled by two glands near the brain, the pineal gland and the pituitary gland. The pineal gland acts as a light receptor. In response to changes in the amount of light received, the pineal gland releases certain amounts

of a hormone. This hormone in turn affects the pituitary gland, which regulates the production of melanin, a dark pigment that provides color to cells that make up skin, hair, fur and feathers. As light decreases with shorter fall days, less melanin is produced and coats change from brown to white.

As you make your preparations for winter this year, take a moment to think about the wildlife around you and what they're doing to get ready for winter. Or, better yet, take some time to get outside and see wildlife's incredible transformations for yourself. You might be surprised by how much we have in common.

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CONTACT INFORMATION

Salt Lake City Office

1594 West North Temple
PO Box 146301, Salt Lake City, Utah 84114-6301
(801) 538-4700

Central Region Office

1115 North Main Street, Springville, Utah 84663
(801) 491-5678

Northern Region Office

515 East 5300 South, Ogden, Utah 84405
(801) 476-2740

Northeastern Region Office

152 East 100 North, Vernal, Utah 84078
(435) 781-9453

Southeastern Region Office

475 West Price River Drive, Suite C, Price, Utah 84501
(435) 636-0260

Southern Region Office

1470 North Airport Road
PO Box 606, Cedar City, Utah 84721-0606
(435) 865-6100

Poaching hotline: 1 (800) 662-DEER

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